



US006253582B1

(12) **United States Patent**
Driggars

(10) Patent No.: **US 6,253,582 B1**
(45) Date of Patent: **Jul. 3, 2001**

(54) **PRINT-RECEPTIVE, PILL-RESISTANT,
KNITTED FABRIC**

(75) Inventor: **Sonny B. Driggars**, Advance, NC (US)

(73) Assignee: **Sara Lee Corporation**, Winston-Salem,
NC (US)

(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/256,981**

(22) Filed: **Feb. 24, 1999**

(51) Int. Cl.⁷ **D04B 1/00**

(52) U.S. Cl. **66/202**

(58) Field of Search **66/202**

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,071,502 * 1/1978 Sugiyama et al. 260/75 T

FOREIGN PATENT DOCUMENTS

2642350 3/1978 (DE) .

2230794 12/1974 (FR) .

1517832 7/1978 (GB) .

48-61798 * 8/1973 (JP) .

OTHER PUBLICATIONS

Pp. 13-15 from Knitting Technology, 2nd Edition, by David
J. Spencer "A Comprehensive Handbook and Practical

Guide to Modern Day Principles and Practices" No PUB.
Date Supplied.

* cited by examiner

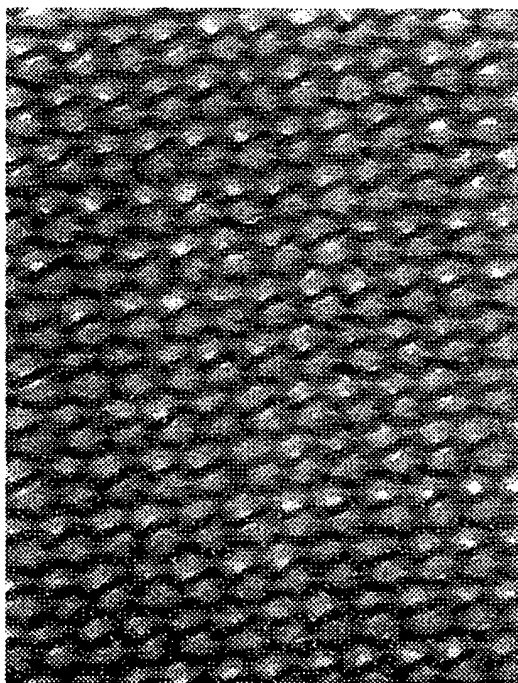
Primary Examiner—Andy Falik

(74) *Attorney, Agent, or Firm*—Rhodes & Mason, PLLC

(57) **ABSTRACT**

A print-receptive, pill-resistant, knitted fabric and printed article of apparel. The fabric is knitted from yarn formed from high-tenacity, staple synthetic fiber having a tenacity value of greater than about 4 grams/denier and preferably about 6 grams/denier. The resulting knitted fabric has a pilling resistance value of greater than about 3. In the preferred embodiment, the high-tenacity, staple synthetic fiber is selected from the group consisting of air jet spun polyester; nylon; acrylic; and polypropylene. The use of staple fibers improves the hand, drape and comfort of the knitted fabric. Also, in the preferred embodiment, the knitted fabric is a double-knit fabric having a front side and a back side, the front side being formed from the high-tenacity, staple synthetic fiber and the back side being substantially formed from cellulosic yarns, such as cotton and synthetic cellulosic fibers. This construction improves both comfort and opacity of the knitted fabric while, at the same time, provides a print-receptive face and good print resolution of the article of apparel after multiple home washings.

17 Claims, 3 Drawing Sheets



009256981